AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph starting at page 3, line 18 as follows:

~~FIG. 8 is an electrical schematic~~ FIGs. 8a and 8b are representative electrical schematics of an electrical circuit of the detonation initiator; and

Please amend the paragraph starting at page 7, line 1 as follows:

With additional reference to FIG. 7, the input terminals 26 are electrically connected to a circuit board 36 that retains components of an electrical circuit 38 ~~(FIG. 8)~~ (FIGs. 8a and 8b). Operation of the electrical circuit 38 will be described in greater detail below. The electrical circuit 38 includes a main capacitor 40; but, in the illustrated embodiment, the main capacitor 40 is not directly mounted to the circuit board 36. In this embodiment, the main capacitor 40 can be connected the circuit board 36 with conductors and is secured to the housing 28. Also connected to the electrical circuit 36 by way of conductors is a coil 42 of a linear actuator assembly 44. For simplicity of the drawing figures, the conductors between the circuit board 36 and each of the capacitor 40 and the coil 42 have been omitted

Please amend the paragraph starting at page 8, line 3 as follows:

As indicated, the linear actuator assembly 44 includes a ~~core~~ coil 42. The ~~core~~ coil 42 can comprise a winding 54 wrapped around a stanchion 56. The stanchion 56 can be made from, for example, aluminum. The stanchion 56 can be secured to the housing 32 (e.g., with the illustrated threaded fasteners) such than during firing of the initiator 14, the stanchion 56, the winding 54 and the conductors that electrically connect the winding 54 to the circuit board 36 have minimal movement with respect to the housing 32. In one embodiment, the stanchion 56 generally defines a hollow

cylinder with an open top end and an at least partially covered bottom end (e.g., a bottom end plate of the stanchion 56 can define threaded screw receptacles and a central through hole). An exterior wall of the stanchion 56 can define one or more recesses to receive the winding 54.

Please amend the paragraph starting at page 11, line 25 and continuing on page 12 as follows:

With additional reference to ~~FIG. 8~~ FIGs. 8a and 8b, shown is a schematic diagram of the electrical circuit 38. The input terminals 26 are connected to a full bridge rectifier D1 in the illustrated manner. In particular, each terminal 26 and the main capacitor 40 is connected to the rectifier D1 such that each terminal 26 is electrically coupled to the main capacitor 40 (as well as the rest of the electrical circuit 38) through a respective diode of the rectifier D1. In this manner, the terminals 26 of the shock tube initiator 14 can be connected in any order to the terminals of the receiver 12 (e.g., either a receiver terminal mark as positive to a terminal 26 marked as positive and a receiver terminal mark as negative to a terminal 26 marked as negative or a receiver terminal mark as positive to a terminal 26 marked as negative and a receiver terminal mark as negative to a terminal 26 marked as positive). As a result, the electrical circuit 38 can operate in a desired manner no matter the connection order.

Please amend the paragraph starting at page 16, line 20 as follows:

In embodiments where the electrical pulse is delivered from a battery operated device, it is possible that the battery condition may be degraded to a point where the main capacitor 40 cannot become charged to the charge threshold during the duration of the electrical pulse. In this situation, no actuation of the linear actuator assembly 44 will take place as the main capacitor 40 will not be discharged by the electrical circuit 38. Ambient temperature is a leading factor on the battery's ability to sufficiently charge

the main capacitor 40. In one embodiment, a thermistor can be added to the voltage divider or replace a resistor (R2, R4 or R5) of the voltage divider to lower the charge threshold for colder ambient temperatures and to raise the charge threshold for warmer ambient temperatures. For example, as shown in FIG. 8b, resistor R2 is shown as a thermistor.